

Docket No. AB-034A3-2A

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (original): A method of making an implantable electrode array comprising:

- (a) forming electrode contact pieces made from a precious, biocompatible material into a desired shape;
- (b) attaching the electrode contact pieces to a foil sheet made from a non-toxic but chemically-active metal;
- (c) connecting a wiring system to the metal contact pieces;
- (d) molding a flexible polymer carrier around the electrode contact pieces and wiring system while such are held in place by the foil sheet; and
- (e) etching away the foil sheet, leaving the electrode contact pieces exposed at a surface of the molded polymer carrier.

Claim 2 (original): The method of Claim 1 wherein step (a) comprises forming the electrode contact pieces into an oval shape.

Claim 3 (original): The method of Claim 1 wherein step (a) comprises forming the electrode contact pieces into a star shape.

Claim 4 (original): The method of Claim 1 further comprising coating the electrode contact pieces exposed at a surface of the molded polymer carrier with a material that controls the surface impedance of the electrode contact piece as a function of location on the contact surface.

Claim 5 (original): The method of Claim 4 comprising coating each electrode contact piece so that the surface impedance of the contact piece increases as a function of distance from the center of the electrode contact piece.

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Claim 6 (original): The method of Claim 1 further comprising masking an electrode contact piece exposed at a surface of the molded polymer carrier with an insulative mask that prevents conduction at various locations at the surface of the electrode contact piece.

Claim 7 (original): The method of Claim 1 further comprising coating at least one of the flexible polymer carrier or electrode contact piece with a drug compound selected to diffuse into tissue around the electrode array for the purpose of any one of the following: inhibiting fibrous tissue growth, inhibiting bone growth, promoting healing, preventing neural degeneration, and promoting neural regeneration.

Claim 8 (original): The method of Claim 7 wherein the step of coating with a drug compound comprises coating at least one of the flexible carrier or electrode contact piece with a steroid.

Claim 9 (original): The method of Claim 7 wherein the step of coating with a drug compound comprises coating at least one of the flexible carrier or electrode contact piece with a neurotrophin.

Claim 10 (original): The method of Claim 7 wherein step (c) comprises molding the flexible polymer carrier so that the resulting electrode array assumes a naturally curved shape.